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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/750,516	12/31/2003	Dae-Ha Lee	3364P160	9238

8791 7590 04/11/2007
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EXAMINER

KANE, CORDELIA P

ART UNIT	PAPER NUMBER
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2109

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/11/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/750,516

Applicant(s)

LEE ET AL.

Examiner

Cordelia Kane

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12/31/2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 6/1/04 and 10/28/05.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

1. This action is responsive to the non-provisional application filed on December 31, 2003. Claims 1 – 11 are pending. Claims 1, 5, 10 and 11 are independent.

Information Disclosure Statement

2. The information disclosure statement filed on June 1, 2004 fails to comply with 37 CFR 1.98(a)(3) because it does not include a concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, of each patent listed that is not in the English language. It has been placed in the application file, but the information referred to therein has not been considered.

Specification

3. The disclosure is objected to because of the following informalities: in paragraph 39 the applicant uses the term disclaim. It is unclear what is meant by this term and is possibly a spelling mistake.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claims 1 – 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shaun D. Pierce et al's US publication 2003/0084292 A1 and further in view of Rosario Gennaro et al's US Patent 5,907,618. Referring to claim 1, Pierce teaches creating a SOAP envelope (page 2, paragraph 20) the method comprised of:

- a. A token of security information (figure 4) in the header (page 9, paragraph 89) including a timestamp (page 7, paragraph 76).
- b. Application data encrypted with a session key (page 2, paragraph 19) in the body (page 8, paragraph 88).
- c. A digital signature in the header (page 8, paragraph 86) that is encrypted (page 8, paragraph 85).

7. Pierce fails to teach the encryption of the of the secret key using an asymmetric key. Gennaro goes on to teach that the use of asymmetric keys is more computationally intensive, but more secure so it is common practice to encrypt symmetric session keys with an asymmetric key (column 1, lines 41-47). It would have

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been obvious to modify Pierce to include an asymmetric key encryption, as taught by Gennaro, because it makes the message more secure.

8. Referring to claim 10, Pierce teaches a computer readable medium (page 3, paragraph 34) for performing the method of claim 1 and likewise the computer readable medium of claim 10.

9. Referring to claim 2, Pierce teaches that the session key is used to both encrypt (page 2, paragraph 19) and decrypt (page 2, paragraph 21) the data. It is inherent that the session key is symmetric.

10. Referring to claim 3, the use of a public key to encrypt the session key makes it inherent that this encryption is asymmetric.

11. Referring to claim 4, since a SOAP message is XML (Pierce, Page 8, Paragraph 83) it is inherent that the encryption would be using an XML algorithm.

12. Referring to claim 5, Pierce teaches verifying a SOAP envelope the method comprised of:

d. Acquiring a certificate for verifying the signature is not specifically stated, but Pierce does state that data would be included with the signature to know what algorithm (certificate) to use to verify the signature (page 8, paragraph 86).

e. Decrypting the encrypted signature in the header of the message with the secret key (page 6, paragraph 71). It is not explicitly stated that the signature is decrypted, but since it is stated that the signature may be encrypted (page 8, paragraph 85), the decryption module would perform the decryption.

- f. Verifying the restored signature is not specifically stated, but Pierce does state that the system would be able to check the validity of the signature (page 8, paragraph 86).
 - g. Decrypting the encrypted data in the SOAP body with the secret key (page 2, paragraph 21).
13. Pierce fails to teach decrypting an encrypted key with the private key of the recipient. Gennaro teaches that asymmetric systems are often used to encrypt symmetric keys (secret key) (column 1, lines 44-47) and that only the receiver may then decrypt the secret key (column 1, lines 35-36). It would have been obvious to modify Pierce to include decrypting the secret key using the private key, as taught by Gennaro, because it makes the transaction more secure.
14. Referring to claim 11, Pierce teaches a computer readable medium (page 3, paragraph 34) for performing the method of claim 5 and likewise the computer readable medium of claim 11.
15. Referring to claim 6, Pierce teaches the passing of the certificate as it is part of the security-concerning information (page 8, paragraph 86). In the specification the applicant defines a security token as security-concerning information.
16. Referring to claim 7, Pierce teaches that the session key is used to both encrypt (page 2, paragraph 19) and decrypt (page 2, paragraph 21) the data . It is inherent that the session key is symmetric.
17. Referring to claim 8, the use of a private key to decrypt the encrypted key makes it inherent that this encryption is asymmetric.

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18. Referring to claim 9, since a SOAP message is XML (Pierce, Page 8, Paragraph 83) it is inherent that the encryption would be using an XML algorithm.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cordelia Kane whose telephone number is 571-272-7771. The examiner can normally be reached on Monday - Thursday 8:00 - 5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Del Sole can be reached on 571-272-1130. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CPK 3/21/07


KIMBERLY D. NGUYEN
PRIMARY EXAMINER